

PATENT
Attorney Docket No. H0002310

Amendments to the Claims

Please cancel Claims 1 - 22 without prejudice.

Please ADD the following new claims:

23 (New). A method for the communication of data, said method comprising the steps of:
providing an optical interface comprising at least two optical components integrated into a common optical package;

coupling communications equipment together with said optical interface; and

permitting bi-directional data communications between said communications equipment through said optical interface.

24 (New). The method of Claim 23, wherein said step of permitting bi-directional data communications further comprise the step of enabling communications of data between a central processing unit (CPU) and at least one display unit.

25 (New). The method of Claim 23, wherein said bi-directional data communication is between a multimedia source and at least one video data display.

26 (New). A method of providing an optical interface for enabling bi-directional communication, said method comprising the steps of:

mounting at least two photonic components onto a multi-element leadframe; and

overmolding said at least two photonic components and said multi-element leadframe with an encapsulant.

27 (New). The method of Claim 26 wherein said at least two photonic components comprise at least one vertical cavity surface emitting laser (VCSEL).

28 (New). The method of Claim 26 wherein said at least two photonic components comprise at least one photodetector.

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29 (New). The method of Claim 26 further comprising the step of coupling a plurality of optical fibers to said optical interface.

30 (New). The method of Claim 29, wherein said plurality of optical fibers comprises a fiber optic ribbon cable.

31 (New). The method of Claim 29 further comprising the step of:
maintaining alignment tolerances between said at least two photonic components and said plurality of optical fibers by utilizing alignment means integrated within said optical interface, wherein said plurality of optical fibers have fiber core diameters between approximately 500 microns and 1mm.

32 (New). A method for the communication of data between a Central Processing Unit (CPU) and a display monitor, said method comprising the steps of:

providing a photonic package containing at least one Vertical Cavity Surface Emitting Laser (VCSEL);

coupling said photonic package to at least one fiber optic ribbon cable; and

permitting data communications between said CPU and said display monitor through said photonic package.

33 (New). A method for communication of data between a server and at least one client, said method comprising the steps of:

providing an optical interface in association with at least one of said server and said client, wherein said optical interface further includes at least two photonic devices integrated as a common optical package;

coupling said optical interface to at least one fiber optic cable; and

permitting data communications between said server and said at least one client through said optical interface.

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34 (New). A system for communicating data between a Central Processing Unit (CPU) and a display unit, said system comprising:

a first optical component package comprising a first group of at least two electro-optical components electrically connected to said CPU;

a second optical component package comprising a second group of at least two electro-optical components electrically connected to said display unit; and

at least one optical fiber connecting said first optical component package and said second optical component package.

35 (New). The system of Claim 34, wherein said at least one optical fiber is a ribbon cable comprising a plurality of optical fibers.

36 (New). The system of Claim 34, wherein said first group and said second group each further comprise:

at least one semiconductor laser and at least one photodetector mounted on a multi-element leadframe; and

plastic overmolding covering said multi-element leadframe.

37 (New). The system of Claim 36, wherein said at least one semiconductor laser comprises at least one vertical cavity surface emitting laser (VCSEL).

38 (New). The system of Claim 34, wherein said at least two electro-optical components of said first and said second group further comprise at least one photodetector and at least one semiconductor laser.

39 (New). The system of Claim 34, wherein said first optical component package and said second optical component package each further comprise optical hardware.

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40 (New). The system of Claim 39, wherein said optical hardware includes at least one lens.

41 (New). The system of Claim 39, further comprising a plurality of optical fibers between said first optical component package and second optical component package, and wherein said optical hardware includes fiber optic alignment means, and wherein said fiber optic alignment means maintains alignment tolerances between the plurality of optical fibers and one of said first optical component package or second optical component package.

42 (New). The system of Claim 34 further including:

a plurality of optical fibers in communication with said first optical component package and second optical component package; and

alignment means, wherein said alignment means maintains alignment tolerances between said plurality of optical fibers and one of said first optical component package or second optical component package.

43 (New). A system for communicating data between a server and at least one client through an optical fiber interface, said system comprising:

at least two photonic devices integrated within a common package and including an alignment means, wherein at least one ribbon plastic optical fiber can be optically aligned to said optical fiber interface via said alignment means, wherein data communications are permitted between said server and at least one client through said optical fiber interface such that said optical fiber interface provides a highly integrated and flexible high bandwidth communications package suitable for display data communications.

44 (New). The system of Claim 43, wherein said at least two photonic devices comprise at least one semiconductor laser and at least one photodetector, said at least one semiconductor laser and said at least one photodetector being mounted on a multi-element leadframe and overmolded with an encapsulant.